



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/478,114	01/04/2000	JOSEPH O. NORRIS	T-4885.CIP	1266

7590 07/19/2005

THORPE NORTH & WESTERN LLP  
ATTN VAUGHN W NORTH/SMP  
PO BOX 1219  
SANDY, UT 84091-1219

EXAMINER

LEE, PING

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/478,114	NORRIS ET AL.
Examiner	Art Unit	
Ping Lee	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1)  Responsive to communication(s) filed on 12 May 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4)  Claim(s) 1-33 and 41-68 is/are pending in the application.  
4a) Of the above claim(s) 2-33 and 42-68 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1 and 41 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 5/12/05 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a))

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_ .

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Busch-Vishniac et al (US 4,429,193).

Regarding claims 1 and 41, Busch-Vishniac et al disclose a speaker device for emitting subsonic, sonic or ultrasonic compression waves, said device being comprised of: a rigid emitter plate (including 90, and 94) having an outer face oriented outward (the top of 90 toward to 98) and an inner face (96 facing 94), said emitter plate having a plurality of apertures (according to dictionary, aperture means open space, as shown in Figs. 8 and 9, a plurality of apertures are located between posts 90) extending between the outer and inner faces, a thin piezoelectric film (92) disposed across the apertures of the emitter plate, electrical contact means (97,99) coupled to the piezoelectric film (92) for providing an applied electrical input (from 100); and pressure means (the pressure means is inherently included to force the film to be shaped as shown in Fig. 8) coupled to the rigid emitter plate for developing a positive biasing pressure with respect to the thin film (92) at the apertures to distend the film into an arcuate emitter configuration capable of constricting and extending in response to variations in the applied electrical

input at the piezoelectric film to thereby create a compression wave in a surrounding environment.

### ***Response to Arguments***

3. Applicant's arguments filed 5/12/05 have been fully considered but they are not persuasive.

Applicant argued that Busch does not disclose an emitter plate.

It is noted that applicant fails to provide any reason why Busch does not disclose an emitter plate. As shown in Fig. 8, the claimed emitter plate reads on the elements 90 and 94.

Applicant argued that Busch fails to show a piezoelectric film.

Busch discloses a polymer film (92 is formed by a polymer; col. 6, lines 58-59) which will respond to the electric current applied to it (97 and 99). Therefore, the foil electret reads on the claimed piezoelectric film. Applicant argued that Busch's film requires a huge amount of potential difference comparing to the disclosed invention in the specification. Claims 1 and 41 do not specify any voltage potential. Therefore, it is irrelevant.

Applicant argued that Busch does not mention any pressure means.

It is agreed that Busch fails to explicitly discuss the pressure means for the embodiment as shown in Fig. 8. However, the pressure means is inherently included to force the film to be shaped as shown in Fig. 8. Applicant mentioned that the gravity and/or adhesive could enable the film to take the form as shown in Fig. 8. Examiner

believes that the claimed pressure means can read on gravity and/or adhesive. For example, the gravity develops a biasing pressure with respect to the thin film at the apertures (the space between 90) to distend the film into an arcuate emitter configuration (Fig. 8 shows an arcuate emitter configuration). For the embodiment as shown in Fig. 7, Busch discusses the gravity (col. 5, line 58).

***Drawings***

4. The drawings were received on 5/12/05. These drawings are approved.

***Conclusion***

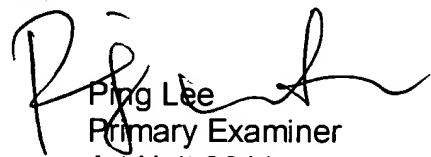
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522. The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ping Lee  
Primary Examiner  
Art Unit 2644

pwl



3/18

Approved  
RJ

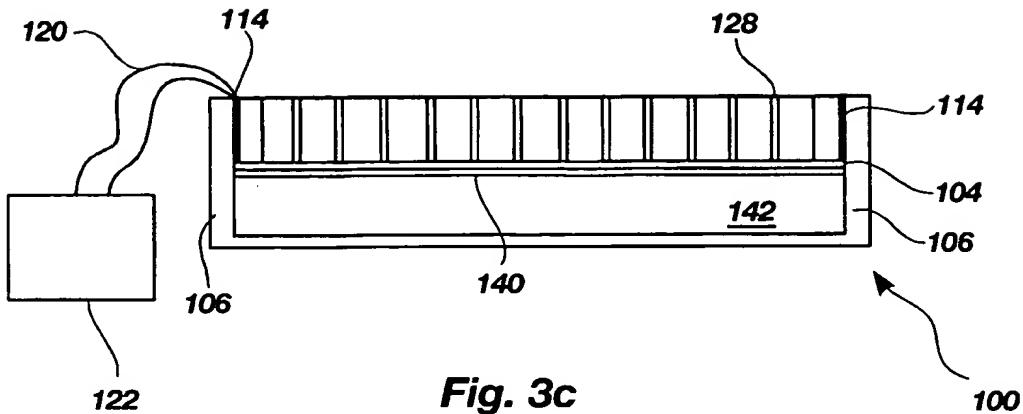


Fig. 3c

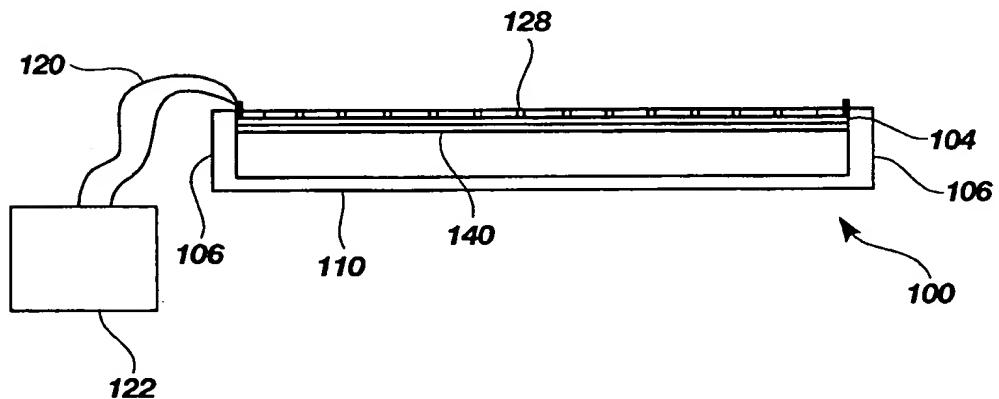


Fig. 3d